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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,221	09/18/2003	Bernhard Strzalkowski	WMP-IFT-928	8468

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EXAMINER	
EJAZ, NAHEED	

ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/666,221	STRZALKOWSKI, BERNHARD	
	Examiner	Art Unit	
	Naheed Ejaz	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 5-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-2 and 5-11 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant argues: "neither Komatsu nor Sharp disclose data transfer channels with a magnetic coupling element". This is not persuasive since the mentioned limitations are rejected by Van Lahr et al. (4,772,963) (Office Action, dated: 11/01/2006, page # 5, paragraph # 15).

3. Applicant argues: "neither reference shows or fairly suggests a data transfer process in which the duration of a time window, which starts following an announcement pulse, is monitored" (Remarks, dated: 04/06/2007 (hereinafter, Remarks), page # 7 of 8, paragraph # 1). This is not persuasive because of the following: first, monitoring of announcement pulse is not claimed. Second, Komatsu et al. (2003/0189984) (hereinafter, Komatsu) transfer dummy data (preamble) signal until a given time period has passed which is to allow first valid or essential data to be transferred (page # 2, paragraph # 0023) which is equivalent to claim limitations since Komatsu preamble (dummy data) (claimed announcement pulse) signal has H and L levels added in terms of the period they occur in order for essential or valid data to be transferred (claimed data transfer process)(page # 3, paragraph # 0054). Furthermore, Komatsu teaches that only the essential data excluding the preamble to be passed to the main function unit 20. In other words, the invalid data whose level is determined in one cycle immediately after the command is discarded (page # 3, paragraphs # 0054-0056)

(claimed duration of a time window since invalid data is discarded within certain time period which is associated with one cycle and essential data is passed after the dummy data (claimed announcement signal) which reads on claim limitations of data transfer process in which the duration of a time window, which starts following an announcement pulse, is monitored.

3. Applicant argues: "neither references shows or fairly suggests that only those data signals are accepted at the receiver that are received during the predetermined time window" (Remarks, page # 7 of 8, paragraph # 1) and "Van Lahr disclosure does not fairly suggest accepting as a data signal only certain signal pulses that fall within a defined time window" (Remarks, page # 7 of 8, paragraph # 4). This is not persuasive since these are the new limitations added to independent claims 1 & 11 as mentioned in the Remarks (Remarks, page 6 of 8, paragraph # 2).

4. Applicant argues: "Van Lahr utilizes a magnetic head for reading from a magnetic tape. As such, the magnetic head is not disposed within a signal transfer channel, but it forms a terminal of the channel. The signal is indeed generated in the magnetic head (from the magnetic information of the tape passing by) for transfer into the data transmission channel". This is not persuasive since Applicant does not claim that magnetic coupling elements cannot be at the terminal of the channel (see claims 1 & 11). Additionally, Van Lahr et al. (4,772,963) (hereinafter, Van) teach plurality of magnetic heads 22a, 22b, 22c and 22d (figure 1) in order for tape to read data from magnetic heads (col.4, lines 14-56) and in order to achieve that tape and head have to

have coupling between them which reads on claim limitations (see claim 1 rejection below).

Response to Amendment

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 2 & 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu et al. (2003/0189984) in view of Van Lahr et al. (4,772,963) and further in view of Dabral et al. (6,154,498) (hereinafter, Komatsu, Van and Dabral respectively).

8. As per claim 1, Komatsu teaches, 'transferring an announcement signal including at least one pulse (Abstract, page # 7, col.2, lines 8-14, page # 8, col.1, lines 8-14) (it is noted in the mentioned paragraphs that Komatsu transmits the preamble "a dummy data" signal (claimed 'transferring an announcement signal including at least one pulse') onto a bus and then sequentially transmits the essential data (claimed 'transferring a data signal')). Furthermore, Komatsu transmits the dummy data with a predetermined level until predetermined length of time is passed and after that he transmits the data by switching to the data output state (page # 3, paragraph # 0054-0056, page # 7, col.2, lines 8-14) (claimed 'within a data signal time window lasting for a prescribed period after the announcement signal')

Komatsu does not teach transferring of first and second channels with first and

second magnetic coupling elements.

Van teaches 'providing first transfer channel with a first magnetic coupling element and a second transfer channel with a second magnetic coupling element' (figure 1, elements 12, 14, 20, 22a-22d & 25, col.2, lines 36-50, col.4, lines 14-56).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to implement the teachings of Van into Komatsu in order to improve bit error rate performance in data without compromising the maximum rate at which digital data is transferred as taught by Van (col.2, lines 30-50) thus increase system performance.

Although Komatsu is transferring only valid or essential data which is specified in certain time period as mentioned above in paragraph # 3 (claimed accepting, at a receiver, only those signal pulses as data signal that are received within the data signal time window) but he does not explicitly teach time window.

Dabral teach timings at the transmitting and receiving 205 for the output signals (figure 2, col.2, lines 37-38). Dabral defined data window as window of time in which valid data is being received (figure 3, element 322, col.2, lines 50-63) which reads on claim limitations 'accepting, at a receiver end, only those signal pulses as data signal that are received within the data signal time window.

It would have been obvious to one of ordinary skill in the art, at the time invention was made to implement the teachings of Dabral into Komatsu and Van in order to minimize the amount of noise in order to increase the likelihood of operating a given device within its designated noise margin as taught by Dabral (col.1, lines 58-64).

9. With respect to claim 2, in addition to aforementioned rejection of claim 1, Komatsu teaches, 'configuring the data signal time window to start after a nonzero time period has elapsed following the announcement signal' (figure 5, paragraphs 0066, 0070 & 0074).

10. As per claim 5, in addition to aforementioned rejection of claim 1, Komatsu discloses, 'transferring control information' (figure 3, elements 1110, 1105 & 1106 & figure 14, paragraphs # 0049-0051).

11. Regarding claims 8 & 9, Komatsu is transferring data signal which contains signal level "L" with the associated period (page # 3, paragraph # 0054) (claimed 'first signal level or second signal level) and that level signal is added to the head of the data sequence and is called a preamble (dummy data) (claimed 'announcement signal') (Abstract) (page # 3, paragraph # 0054) (claimed 'transferring announcement signals at regular intervals of time and transferring respective pulse trains representing the first signal level or the second signal level during data signal time windows following the announcement signals). Furthermore, Komatsu also teaching that signals levels 'H' & 'L' are being switched according to the data period (page # 4, paragraph # 0070) which reads on claim limitations of 'a first signal level or a second signal level by transferring announcement signals upon every level change in the input signal'.

12. Claim 10 is rejected under the same rationale as mentioned in the rejection of claims 8 & 9 above.

13. Claim 11 is rejected under the same rationale as mentioned in the rejection of claim 1 above.

14. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu et al. (2003/0189984) in view of Sharp (3,763,472), as applied to claims 1 & 5 above, and further in view of Berger et al. (3,573,740) (hereinafter, Berger).

15. Refer to claim 6, Komatsu and sharp teach all the limitations in the previous claims on which claim 6 depends but they fail to disclose control information with a parity check signal.

Berger teaches, 'the control information comprises at least one of a parity check signal and a transfer stop signal' (figure 2, elements 61, 70 & figure 5).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to implement the teachings of Berger into Sharp & Komatsu in order to provide a real time data processing by continuously monitoring and controlling the transfer of data as taught by Berger (col.1, lines 49-55) thus enhance system reliability.

16. Regarding claim 7, Komatsu and sharp teach all the limitations in the previous claim on which claim 7 depends but they fail to disclose data signal in coded form explicitly.

Berger discloses, 'data signal is transferred in coded form' (figures 4 & 5, col.2, lines 37-42).

It would have been obvious to one of ordinary skill in the art, at the time of invention, to implement the teachings of Berger into Sharp & Komatsu in order to provide a real time data processing by continuously monitoring and controlling the transfer of data as taught by Berger (col.1, lines 49-55) thus enhance system reliability.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Aoki (2006/0221088) teach memory interface control circuit (figure 3, paragraph # 0023).

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naheed Ejaz whose telephone number is 571-272-5947. The examiner can normally be reached on Monday - Friday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Naheed Ejaz
Examiner
Art Unit 2611

NE
6/19/2007

JAY K. PATEL
SUPERVISORY PATENT EXAMINER